

Attribute Label	Attribute Meaning
BOOK	A sequence of CANTOS.
CANTO	A sequence of VERSES
VERSE	A line of poetic text content

Table 6: A semantic representation for poetry.

Attribute Label	Attribute Meaning
VOLUME	A sequence of POEMS.
POEM	A sequence of PASSAGES
PASSAGE	A sequence of LINES
LINE	A verse of poetic text content

Table 7: Another semantic representation for poetry.

A tree structure encodes a specific structural decomposition of a document instance. Where multiple orthogonal structural decompositions exist, each decomposition can be expressed by a different synchronous, tree structure. For example, a picture can be decomposed into LAYERS, each of which can also play the role of a RASTER. Each synchronous tree structure can be represented by a separate structural decomposition. Alternatively, a node in a tree structure may include a ROLE attribute which identifies the various other roles played by the structural feature represented by that node. Attribute ROLE provides alternative interpretations of the structural feature corresponding to a given node. Referring to Fig. 1C, layers 122, 124 of Figure 2.1 each play the role of a RASTER in addition to its role as a LAYER, as indicated by the ROLE attributes associated with Node_2.221 and Node_2.222. The client may use the ROLE attribute in many ways. For example, a client may use the ROLE attribute to specify the form in which content corresponding to a particular node should be extracted from a document. A client may also use the ROLE attribute to enumerate certain structural features in a document (e.g., the number of chapters in a document).